

What Is Claimed Is:

1. A method for monitoring a distributed system made up of a plurality of users that are connected by one bus system, wherein at least a number of the users are provided as monitoring users, and process data of at least one monitored user are filed in data areas of memory units of the bus system, to which the monitoring users have access, and the process data are evaluated by the monitoring users.
2. The method as recited in Claim 1, wherein each of the data areas is uniquely allocated to a monitored user.
3. The method as recited in Claim 2, wherein the monitored user has no access to the data area allocated to it.
4. The method as recited in Claim 1, wherein the data areas are distributed over at least two memory units.
5. The method as recited in Claim 1, wherein at least a part of the data areas is provided simultaneously in each memory unit.
6. The method as recited in Claim 1, wherein each monitoring user, with the exception of the monitored user itself, generates outcome data as a function of the evaluation of the process data of the monitored user.
7. The method as recited in Claim 6, wherein the outcome data include a fault information.

8. The method as recited in Claim 6,
wherein the outcome data include information on measures.
9. The method as recited in Claim 6,
wherein the outcome data are transmitted via the bus
system to a communications controller of the bus system
of the monitored user.
10. The method as recited in Claim 6,
wherein the outcome data are filed in the data areas.
11. The method as recited in Claims 2 and 6,
wherein the outcome data are in each case allocated to
each monitored user and filed in the data areas allocated
to these.
12. The method as recited in Claim 1,
wherein for the monitoring, a weighted fault selection,
such as an n of m decision is carried out, m being the
number of the monitoring users less the monitored one
itself, and $m > 2$, with $n > m/2$.
13. A device for monitoring a distributed system made up of a
plurality of users that are connected by one bus system,
wherein at least a number of the users are provided as
monitoring users, first means are provided which file the
process data of at least one monitored user in data areas
of memory units of the bus system, to which second means
of the monitoring users have access, and these second
means evaluate the process data.
14. The device as recited in Claim 13,
wherein each of the memory units is allocated to one
monitoring user.
15. A bus system for monitoring a distributed system made up
of a plurality of users that are connected by the bus

system,

wherein at least a number of the users are provided as monitoring users and first means are provided which file the process data of at least one monitored user in data areas of memory units of the bus system, to which second means of the monitoring users have access, and these second means evaluate the process data.

16. A distributed system made up of a plurality of users that are connected by one bus system,
wherein at least a number of the users are provided as monitoring users and first means are provided which file the process data of at least one monitored user in data areas of memory units of the bus system, to which second means of the monitoring users have access, and these second means evaluate the process data.